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REMARKS

Applicants' attorney thanks the examiner for the allowance of claims 2, 3, 9, and 10.

Each of independent claims 5 and 6 has again been rejected as anticipated by the Turner '396 reference. The rejection was on the ground that the apparatus claims were based upon the recitation of a method step involving optimization. Each of those claims has been amended to recite the structure of the respective longitudinal and vertical legs of the plate and relating the structure to particular operating conditions to which the plates are subjected. The claims thus relate to optimized plate structures, and they identify how those optimized plate structures are obtained in terms of providing a plate that has legs with a minimum bending moment under load.

The Turner reference does not disclose a chain plate in which the plate geometry is such that it has legs having a longitudinal length or legs having a vertical length that are configured to have a minimum bending moment within either the longitudinal legs or the vertical legs of the plate, as claimed in amended independent claims 5 and 6. Nor does the Turner reference teach or even remotely suggest a plate having a minimum bending moment. Instead of providing a plate having minimized bending moments in the longitudinal or vertical legs, as claimed in respective claims 5 and 6, Turner teaches balancing the stresses and the moments in the inner and outer links of a chain (see, e.g., Turner, col. 2, lines 32-34) that includes both thin links and more robust, or stronger, links in order "to better [the] load distribution among the links" (Turner, col. 7, line 59). The Turner reference is thus not directed to determining minimum bending moments in the longitudinal and vertical legs of a link plate to minimize material usage

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and consequently weight, as claimed in each of independent claims 5 and 6, but only to equalizing the loads carried by plates having a different plate thickness in a plate link chain that includes both thin plates and more robust plates. It is clearly directed to the equalization of plate loads, not to the minimization of material usage and weight.

In addition to being directed to a different chain structure, one involving a chain having both thin and more robust plates that are installed in a particular pattern within the chain, the Turner reference does not teach the relationship between plate geometric factors in order to achieve minimum bending moments within the longitudinal and vertical legs of a plate as claimed in independent claims 5 and 6. Nor does the Turner reference teach or suggest modifying plate geometric factors to achieve a plate that has minimal leg bending moments. Again, the Turner reference is directed to equalizing the loads assumed by plates positioned across the width of a chain and having different plate thicknesses, not to minimizing bending loads imposed on the legs of the plates of the chain. Moreover, the bending and bending moments discussed throughout the Turner reference are not plate leg bending moments, but are pin bending and pin bending moments, (see, Turner, col. 4, lines 44-47; col. 5, lines 17-19; col. 6, lines 27-29; and col. 7, lines 7-9). Therefore, the Turner reference, which relates to plates in which stresses and moments are equalized and not to plates having minimized leg bending moments, neither discloses nor even remotely suggests the invention as it is claimed in independent claims 5 and 6.

Claims 7 and 8 depend from amended claims 5 and 6, respectively. And in that regard the Turner reference does not disclose a factor k as recited in either of independent claims 5 and 6 of the present application.

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Finally, it should again be noted that the counterpart European application that stems from the same PCT application as does the present application has been patented as EP 1 499 817 B1, a copy of which is attached. Although the text of that patent is in German, the patented claims are presented in English on pages 9-12. The patented claims are very similar in terminology and scope to those presented herein, and both method and apparatus claims are included. Additionally, I am informed by my German associate that the corresponding Chinese application has also matured into a patent.

Based upon the foregoing amendments and remarks, each of claims 5 and 6 in this application are urged clearly to be allowable in that they patentably distinguish over the Turner reference that was cited and relied upon by the examiner, whether that reference be considered in the context of 35 U.S.C. § 102 or even of 35 U.S.C. § 103. Consequently, reconsideration and reexamination of the application is respectfully requested with a view toward the issuance of an early Notice of Allowance.

The examiner is cordially invited to telephone the undersigned attorney so that any question he might have can be quickly resolved in order that the present application can proceed toward allowance.

Respectfully submitted,



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